App. No. 09/995447
Amd. Dated November 5, 2003
Office Action Dated August 5, 2003

Amendments to the Specification:

Please replace the paragraph beginning at page 4, line 30 with the following amended paragraph:

Fig. 2 is a sectional diagram showing a top-emission OLED according to the present invention. The top-emission OLED has a plurality of TFT devices in array and circuit structures completed in a substrate 20. Also, according to the designed pattern of the pixel area, a plurality of lengthwise-extending anode layers 22, an organic fluorescent film [[24]]26, a plurality of ribs 24 for separating adjacent luminescent spaces, a plurality of transversely-extending cathode layers 28, a transparent barrier layer 30, a transparent protection layer 32 and a transparent sealing structure 34 are successively formed on the substrate 20.

Please replace the paragraph beginning at page 5, line 19 with the following amended paragraph:

Fig. 3 is a schematic diagram showing the transparent sealing structure 34 according to the present invention. The transparent sealing structure 34 comprises at least one [[an]] adhesion layer 36, a plurality of organic resin layers 38, a plurality of inorganic barrier layers 40 respectively disposed between the organic resin layers 38, a flexible polymer film 42 and a hard coat 44. The flexible polymer film 42 serves as a main substrate of the transparent sealing structure 34, thus the hard coat 44 and the organic resin layer 38 are stacked on opposed sides of the flexible polymer film 42. The adhesion layer 36 is selected from resin or any other

transparent adhesion materials to provide adhesion between the sealing structure 34 and the protection layer 32. Also, the adhesion layer 36 has a stress-buffering capability, thus two of the inorganic barrier layers 40 can be glued to each other through an adhesion layer 36. The inorganic barrier layer 40 is selected from transparent dielectrics, such as SiC, SiO_2, Si_3N_4, Al_2O_3 by PECVD to provide a good resistance to moisture/oxygen. The organic resin layer 38 is used to decrease the internal stress generated by the ~~organic~~ inorganic barrier layer 40 to assure the planarization of the sealing structure 34. The hard coat 44 may be a hardened coating, an anti-reflective coating or a 1/4 [[□]] λ polarizer, for example, a laminated structure consisting of SiO_2, TiN and TiN/SiO_2. The hard coat 44 is employed to obstruct the permeation/pollution of moisture, oxygen and impurities. As a whole, the sealing structure 34 provides good planarization, excellent resistance to moisture and sufficient transparency to promote the luminescent property and lifetime of the top-emission OLED. Furthermore, the sealing structure 34 achieves commercial requirements of the top-emission OLED, such as light weight and thin type.

Please replace the paragraph beginning at page 6, line 11 with the following amended paragraph:

In sealing the top-emission OLED, when the barrier layer 30 and the protection layer 32 are completed on the substrate 20, the adhesion layer 36 is coated at the bottom of the sealing structure 34 or coated on the top of the substrate 20. Since the sealing structure 34 includes laminated films stacked on opposed sides of the flexible polymer film42, ~~Then, using a roll-~~

~~press manner,~~ the sealing structure 34 is then glued to the top of the top-emission OLED by a roll-press manner. This sealing method is simple to reduce process costs and increase throughput of the top-emission OLED.